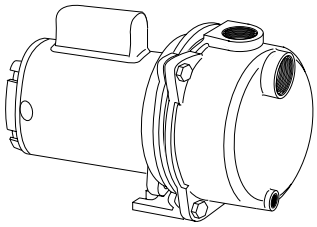
Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Lawn Sprinkler Pump



Description

This pump is a high capacity, self-priming centrifugal pump suitable for lawn sprinkling or other applications where large quantities of water are required. Flammable liquids such as gasoline, chemicals or corrosive liquids should never be used with this pump.

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

⚠ DANGER ***Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.***

⚠WARNING ***Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.***

⚠ CAUTION ***Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.***

⚠ NOTICE ***Notice indicates important information, that if not followed, may cause damage to equipment.***

General Safety Information

1. Read these rules and instructions carefully. Failure to follow these instuctions could cause serious bodily injury and/or property damage.

⚠ DANGER ***This pump is non-submersible.***

⚠WARNING

Pump only clear water. Do not pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. Personal injury and/or property damage could result.

⚠ NOTICE ***This pump is not designed to handle salt water, brine, laundry discharge or any other application which may contain caustic chemicals and/or foreign materials. Pump damage could occur if used in these applications and will void warranty.***

⚠WARNING

All wiring must be performed by a qualified electrician. The pump must be installed in compliance with all local and national codes.

2. Connect this product to a grounded circuit equipped with a ground fault interruptor device.
3. Before installing this product, have the electrical circuit checked by an electrican to ensure proper grounding.
4. BE CERTAIN the pump power source is disconnected before installing or servicing pump.

5. Check motor voltage setting on motor endplate and make sure the line voltage of the electrical current supply is correct.
6. Be sure the water source and piping is clear of sand, dirt and scale. Debris will clog pump and void warranty.
7. Failure to protect pump and piping from freezing could cause severe damage and will void the warranty.
8. Do not run pump dry. Follow priming instructions.

Installation

Protect pump from the elements by installing in a basement, garage, tool shed or pump house. Install the pump so the centerline of the pump is as close as possible to the water level. Keep installation area clear to provide access for service and maintenance. Protect the pump against flooding and excess moisture.

Make sure the pump has adequate ventilation. The surrounding temperature should not exceed 100°F (38°C) or nuisance tripping of the motor may occur.

PUMP PIPING INSTALLATION

Use new pipe for best results. Galvanized or plastic pipe can be used. When using galvanized pipe, provide independent supports for both suction and discharge piping near the pump to avoid strain on the pump. Minimize use of elbows and fittings to reduce friction loss. Refer to the friction loss chart for specific information.

Increase diameter of suction or discharge piping if length is over 50 feet.

SUCTION PIPING

⚠WARNING ***Install foot valve or strainer screen over intake of suction piping.***

Never use pipe smaller than 2" in diameter for suction piping. The suction pipe must be kept free of air leaks.

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Lawn Sprinkler Pump

Installation (Continued)

For horizontal runs, lay pipe from the water source so the upward slope is at least 1/2" per foot. This eliminates trapped air. The threaded inlet of the pump is 2" NPT.

⚠ DANGER ***Do not install suction piping near swimming areas.***

DISCHARGE PIPING

Install a 1-1/2" pipe tee in the pump discharge to allow easy priming. Plug the end of the tee opposite the pump to allow the branch piping to go to the spray nozzles (See Figure 1). Remove the pipe plug to fill the pump with water for priming.

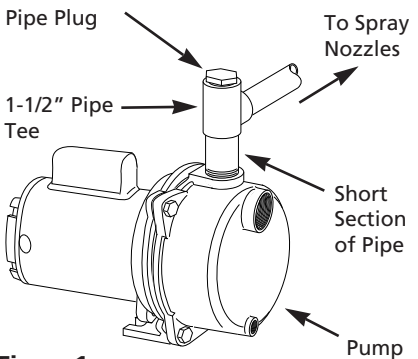


Figure 1

CONNECTION TO WATER SOURCE

The maximum vertical suction lift from pump to the water level is 25 feet.

DRILLED WELL

1. Install a foot valve on the first section of pipe (see Figure 2).
2. Lower the pipe into the well.
3. Add pipe until the foot valve is 10 feet below the lowest anticipated water level.

Leaking joints or couplings will allow air to leak into the pipe and cause poor pump operation. Make sure to use pipe joint compound or Teflon® tape on all pipe connections.

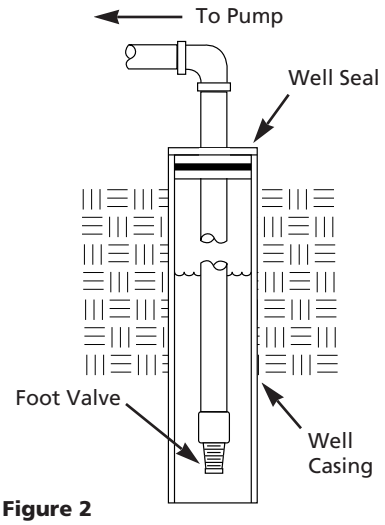


Figure 2

⚠ CAUTION ***Locate foot valve no closer than 2 feet from the bottom of the well so sand or sediment is not drawn into the system.***

4. After the proper depth is reached, install a well seal or pitless adapter to support the pipe.
5. Slope the horizontal pipe upward toward the pump to eliminate trapping air.
6. When using a foot valve, a priming tee and plug above the well seal is recommended.

DRIVEN WELL

1. Drive the point several feet below the water table.

NOTE: A packer-type foot valve can be installed in the well (See Figure 3). This type of foot valve allows the well pipe to be filled with water when priming and makes the inlet pipe much easier to test for leaks. Follow the manufacturer's instructions when installing the packer-type foot valve.

As an alternative, an in-line check valve can be used with a driven well (See Figure 4).

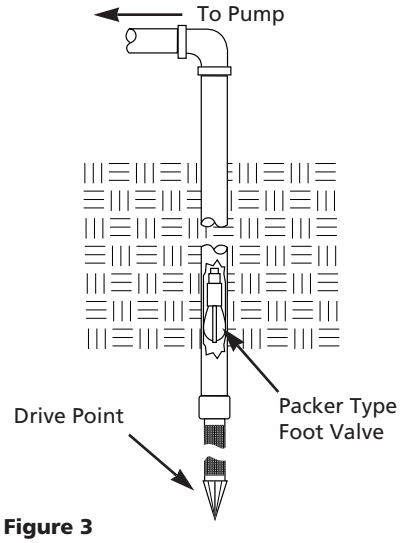


Figure 3

It may be necessary to supply the pump with multiple well points to maintain the high flow capability of this pump. Consult with a plumbing professional for appropriate materials and installation instructions.

Leaking joints or couplings will allow air to leak into the pipe and cause poor pump operation. Make sure to use pipe joint compound or Teflon® tape on all pipe connections.

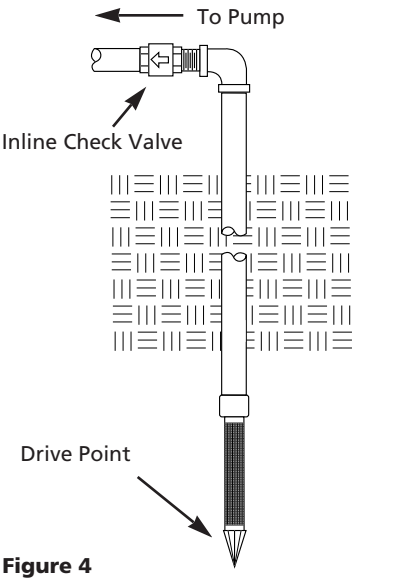


Figure 4

WLS Series

Dug Well, Cistern, Lake And Spring Installation

1. Install a foot valve on the inlet pipe and lower into the water.

⚠ CAUTION ***Locate foot valve no closer than 2 feet from the bottom of the water source so sand or sediment is not drawn into the system.***

NOTE: When a lake is used for the water supply, make sure the suction pipe is deep enough to be submerged at all times. Slope the pipe upward toward the pump to eliminate trapping air. The pipe must be removed during winter months or protected against freezing.

⚠WARNING ***Protect the pipe from damage by swimmers and boaters.***

Electrical Connections

Connect the pump to a separate electrical circuit with a dedicated circuit breaker. Refer to the electrical specifications in wiring chart for recommended circuit breaker and wire size.

Install and maintain wiring for this pump in accordance with the National Electrical code and all applicable local electrical codes.

The motor must be grounded by connecting a copper conductor to the grounding screw provided within the wiring compartment.

The voltage of power supply must match the voltage of the pump. The WLS75, WLS100 and WLS150 have dual voltage motors preset at the factory to 230 volts. The motors can be converted to 115 volts by turning the voltage selector to the desired voltage (See Figure 5). Use a needle nose pliers to pull the selector out approximately 1/4", rotate and then reinsert in correct position. **The WLS200 cannot be converted; the motor is 230 volts only**.

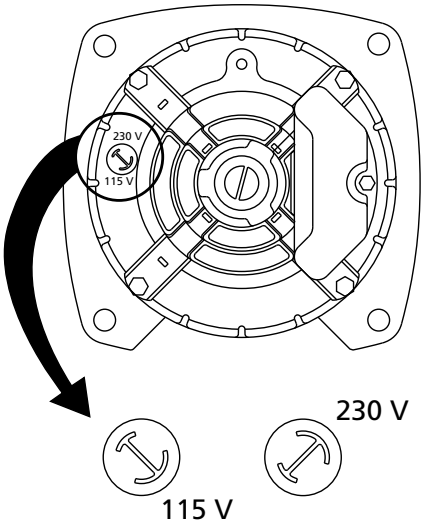


Figure 5 - Voltage Selector

Operation

⚠ CAUTION ***Never run the pump dry. Running pump without water may cause seal damage. Fill the pump with water before starting.***

PRIMING THE PUMP

After pump installation is complete, the pump must be primed. Remove the pipe plug in the discharge piping and fill the pump and suction pipe with clean water. Turn power to pump on. If the pump does not pump water in 10 minutes, turn off the pump and refill with clean water.

If the pump does not operate after repeated attempts, check the following:

1. Vertical distance of pump to water level must not be over 25 feet.
2. Suction piping must be air tight.
3. Be sure valve(s) are open if used in discharge or suction piping.

⚠ CAUTION ***Never run the pump with a closed or clogged discharge. The water inside the pump could boil and damage the pump.***

Maintenance

Maintain adequate ventilation for the pump motor. The motor bearings are permanently lubricated at the factory. Additional lubrication is not required.

WIRING CHART - RECOMMENDED WIRE AND FUSE SIZES

Model	HP	Volts	Max. Load Amps	Fuse Rating Amps	Distance in Feet From Motor to Supply (AWG Wire Size) 0 50	51 100	101 200	201 300
WLS75	3/4	115	13.5	20	12	12	10	10
		230	7.0	15	14	14	12	12
WLS100	1	115	14.8	20	12	12	10	10
		230	7.4	15	14	14	12	12
WLS150	1-1/2	115	17.0	30	10	10	8	8
		230	8.5	15	14	14	12	12
WLS200	2	230	12.0	15	14	14	12	12

Lawn Sprinkler Pump

Maintenance (Continued)

DRAINING FOR WINTER

Always protect pump and piping against freezing temperatures. If there is any danger of freezing, drain the system. To drain the system:

1. Remove the pipe plug from the discharge tee.
2. Remove the 1/4" plug from the lower front face of the pump.
3. Drain all piping below the frost line.

3/4 HP Pump Capacity in GPH			
Lift in Feet	Operating Pressure (psi) 10	20	30
5	3900	3320	2320
10	3780	3120	2100
15	3600	2910	1190
20	3250	2670	990
25	3010	2560	840

1 HP Pump Capacity in GPH			
Lift in Feet	Operating Pressure (psi) 10	20	30
5	4410	3920	2570
10	4180	3520	2300
15	3830	3340	1780
20	3680	3060	1160
25	3340	2720	1260

1-1/2 HP Pump Capacity in GPH				
Lift in Feet	Operating Pressure (psi) 10	20	30	40
5	4790	4480	3480	2060
10	4610	4310	3190	1520
15	4320	4040	2900	0
20	3900	3720	2680	0
25	3810	3300	2390	0

2 HP Pump Capacity in GPH				
Lift in Feet	Operating Pressure (psi) 10	20	30	40
5	5980	5560	4310	3060
10	5410	5220	4090	2880
15	5230	4980	3900	2570
20	4120	3840	3510	2210
25	3980	3600	3300	0

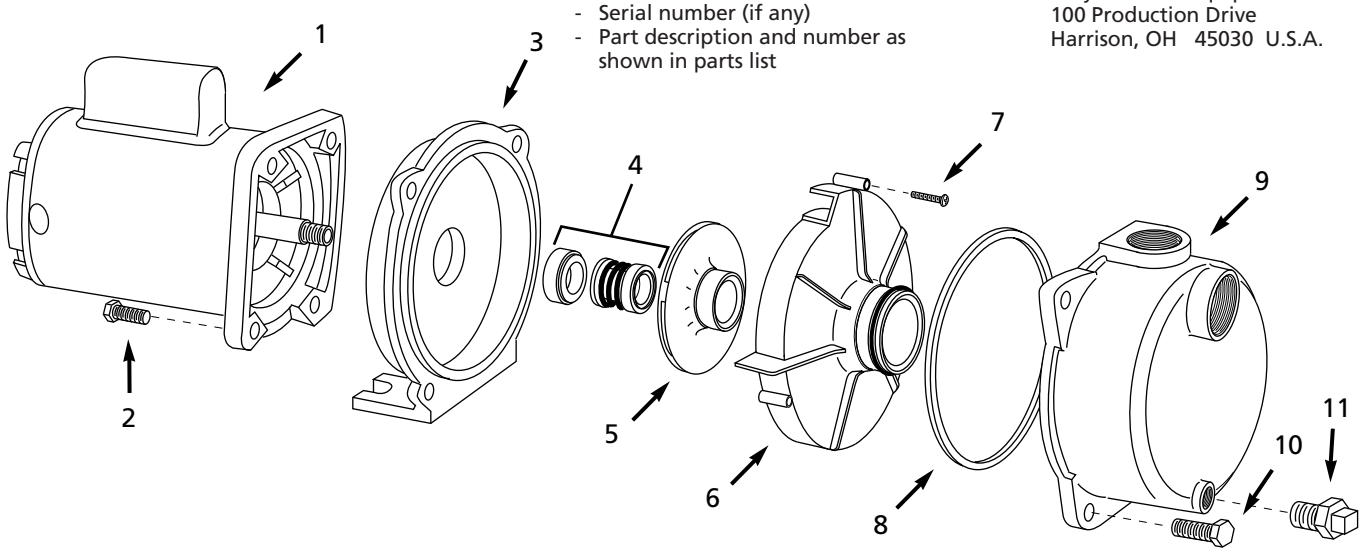
psi Friction Loss in 100 Feet of Plastic Pipe*									
Pipe Size	(Gallons per Hour) 1200	1500	1800	2400	3000	3600	4800	6000	7200
1-1/4	2.6	3.9	5.5	9.4	14.1				
1-1/2	1.2	1.9	2.6	4.4	6.7	9.4	15.9		
2		0.6	0.8	1.3	2.0	2.8	4.7	7.1	10.0
2-1/2				0.6	0.8	1.2	1.3	3.0	4.2

* Multiply by 1.8 for steel pipe

For Replacement Parts, call 1-800-237-0987

Please provide following information:
- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:
Wayne Home Equipment
100 Production Drive
Harrison, OH 45030 U.S.A.



Ref. No.	Description	Part Number for Models: WLS75	WLS100	WLS150	WLS200	Qty.
1	Motor	32031-001	32015-001	32020-001	32021-001	1
2	3/8"-16 x 1" Hex cap screw	16334	16334	16334	16334	4
3	Sealplate	41011-001	41011-001	41011-001	41011-001	1
4	Shaft seal assembly	15559-002	15559-002	15559-002	15559-002	1
5	Impeller	29806-001	29805-001	29804-001	29803-001	1
6	Diffuser	29807-001	29807-001	29807-001	29807-001	1
7	10-24 x 1" Phillips screw	67017-001	67017-001	67017-001	67017-001	3
8	Square ring	19013-001	19013-001	19013-001	19013-001	1
9	Volute	41010-001	41010-001	41010-001	41010-001	1
10	7/16"-16 x 1.25" Hex cap screw	67018	67018	67018	67018	4
11	1/4" NPT Sq. hd. pipe plug	16314-002	16314-002	16314-002	16314-002	1

Limited Warranty

For one year from the date of purchase, Wayne Home Equipment Division ("Wayne") will repair or replace, at its option, for the original purchaser any part or parts of its Sump Pumps or Water Pumps ("Product") found upon examination by Wayne to be defective in materials or workmanship. Please call Wayne (800-237-0987) for instructions or see your dealer. Be prepared to provide the model number and the serial number when exercising this warranty. All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser.

This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with Wayne's written instructions.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND ANY LIABILITY FOR ANY AND ALL INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES WHATSOEVER IS EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations might not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

In no event, whether as a result of breach of contract warranty, tort (including negligence) or otherwise, shall Wayne or its suppliers be liable for any special, consequential, incidental or penal damages including, but not limited to loss of profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of buyer's customers for such damages.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** send a **copy** of the purchase receipt along with the material or correspondence. Please call Wayne (800-237-0987) for return authorization and instructions.

DO NOT MAIL THIS FORM TO WAYNE. Use this form only to maintain your records.

MODEL NO._____ SERIAL NO._____ INSTALLATION DATE_____

ATTACH YOUR RECEIPT HERE